

CLAIMS

1. A respiratory mask that conforms to N95 performance and other high performance standards in air permeability for improved air circulation, the
5 respiratory mask having a mask body and a headband for putting on the respiratory mask to the face of a wearer, the mask body consisting of :-
- 10 an inside mask;
- an outside mask,
- the inside mask having two or more filter layers;
- 15 the outside mask having two or more filter layers;
- one or more spacers inserted between the filter layers of the inside mask to generate space between different filter layers of the inside mask; and
- 20 one or more spacers inserted between the filter layers of the outside mask to generate space between different filter layers of the outside mask
- 25 so that when air is discharged by the wearer, the spacers together with the filter layers provide a pumping effect mechanism to blow out more carbon dioxide given off by the wearer to the surrounding and to take in more air from the surrounding for the wearer.
- 30 2. A respiratory mask with claimed in claim 1 wherein after a prolonged period of use of the respiratory mask by the wearer, and there is insufficient exchange of exhaled air with the air from the surrounding, the spacer enables the puffing up of the mask, thereby increasing the size of the respiratory mask so as to provide a visual
35 check on the choking of the mask of the wearer.

3. A respiratory mask as claimed in claim 1 wherein the spacer acts as a semi-rigid supporting frame to prevent the respiratory mask from collapsing during inhalation.

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4. A respiratory mask as claimed in claim 1 wherein the spacer is of round cross section.

5. A respiratory mask as claimed in claim 1 wherein the spacer is of rectangular cross section.

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6. A respiratory mask as claimed in claim 1 wherein the spacer is of square cross section.

7. A respiratory mask as claimed in claim 1 wherein the spacer is a offset tapered concentric ring.

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8. A respiratory mask as claimed in claim 1 wherein the spacer is a offset or non-offset tapered square frame.

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9. A respiratory mask as claimed in claim 1 wherein the spacer is a offset or non-offset tapered diamond frame.

10. A respiratory mask as claimed in claim 1 wherein the spacer is a offset or non-offset tapered elliptical frame.

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11. A respiratory mask as claimed in claim 1 wherein the spacer is made by folding two filter layers in the cross sectional shape of a dovetail running in parallel across the mask body, either horizontally or vertically or both horizontally and vertically in combination.

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12. A respiratory mask as claimed in claim 1 wherein the respiratory mask has a foam lining on the opening of the respiratory mask to provide air tight sealing to prevent any discharge of contaminants from getting out or into the respiratory mask.

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13. A respiratory mask as claimed in claim 1 wherein the respiratory
mask has a neck curtain to cover the neck of the wearer with voluminous,
5 thick and stiff beard.

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